



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/198,534 11/24/98 BAN

S 48864-014

020277
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WM31/1106

EXAMINER

BALI, V

ART UNIT

PAPER NUMBER

2623

DATE MAILED:

11/06/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/198,534

Applicant(s)

BAN ET AL.

Examiner

Vikkram Bali

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 32 and 33 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-31 and 36-38 is/are allowed.
- 6) ☒ Claim(s) 1-9, 13, 14, 19, 20, 34, 35 and 39 is/are rejected.
- 7) ☒ Claim(s) 10-12, 15-18 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In response to the reply filed on 8/8/2001 to the prior Office action, all the amendment to the claims has been entered.

Election/Restrictions

2. Newly submitted claims 32-33 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claims 32 and 33 are directed towards combining two 3-dimensional form data which is different from the claims as claimed before, as previously the claims were directed towards combining the 3-dimensional form data and the 2-dimensional image data.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 32-33 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2, 3-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 2, 3, 6 and 9 recite the limitation "the 2-dimensional; data" in line 3 of claim 2; in line 2 of claim 3; in line 2 of claim 6; and line 3 of claim 9. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 2, 13, 14, 19-20, 34-35 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka (US 5214511).

With respect to claim 1, Tanaka in image transforming apparatus discloses: a modifying unit which modifies a form of a part of the 3-dimensional form data, (see col. 2, lines 8-9, wherein, a 3-dimehsonal curved surface "3-dimensional data" gets transformed "modifying" as an input image data gets mapped on it) as claimed. However, he fails to explicitly disclose: maintaining a form of other parts thereof; as claimed. But, it is well understood from the col. 2, lines 7-9, that only the front side of the curved surface is modified and all the other parts of the curved surface are same.

Therefore, it would have been obvious to one ordinary skilled in the art at the time of invention to modify the Tanaka's image transforming apparatus by simply having the front side of the 3-dimensional curved surface's front side modified by keeping all the other sides as is (see figure 6). This provides an apparatus that will keep the edge portions of the output image as its best quality.

With respect to claim 2, Tanaka further discloses: a first generating unit which generates the 2-dimensional image data; and a second generating unit which generates

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the 3-dimensional form data of the object, (see col. 3, lines 20-30, wherein, the input image and the 3-dimensional form data is predetermined) as claimed.

With respect to claim 13, Tanaka discloses the invention substantially as claimed and as described in claim 1. However, he fails to disclose: data processing apparatus is set in a specific mode, as claimed in claim 13. But, it is obvious that the system does not perform any function unless the apparatus is in active/on mode.

Therefore, it would have been obvious to one ordinary skilled in the art to modify the Tanaka's image transforming apparatus by introducing the known feature of on/off mode, as it is known to have a on/off mode in all the apparatuses to make it work or to keep inactive once the function is performed in order to conserve the energy. This modification will provide a method that will modify the 3-dimensional form data only in a given mode, or once the mode is set.

Claim 14 is rejected for the same reasons as set forth for the claim 1, because claim 14 is claiming substantially similar subject matter as claim 1.

With respect to claim 19, Tanaka further discloses: wherein a partial form of the object corresponding to the part is emphasized in the step (b), (see col. 3, lines 20-30, wherein, only the front "partial form is emphasized" of the 3-dimensional curved surface is modified) as claimed.

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With respect to claim 20, Tanaka discloses the invention substantially as claimed and as described in claim 14. However, he fails to disclose: the part is smooth in the step (b); as claimed in claim 20. But, it is obvious to smoothing the images during the image processing for blurring and for noise reduction, the blurring is used in preprocessing steps such as removal of small details from an image.

Therefore, it would have been obvious to one ordinary skilled in the art to modify the Tanaka's image transforming apparatus by introducing the known feature of smoothing the images during the image processing for blurring and for noise reduction, the blurring is used in preprocessing steps such as removal of small details from an image, as it is known to have a smoothing of the images during the image processing for removal of small details from an image. This modification will provide a method that will modify the 3-dimentional form data that will use the smoothing of images in order to remove the small details that is required by the 2-dimensional data.

Claims 34 and 35 are rejected for the same reasons as set forth for the claims 1 and 2, because claims 34 and 35 are claiming substantially similar subject matter as claims 1 and 2.

Claim 39 is rejected for the same reasons as set forth for the claims 1 and 2, because claim 39 is claiming substantially similar subject matter as claims 1 and 2.

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Allowable Subject Matter

9. Claims 10-12 and 15-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 21-31, 36-38 is allowed.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikkram Bali whose telephone number is 703.305.4510. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703.308.6604. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9314 for regular communications and 703.872.9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.0377.

Vikkram Bali
Examiner
Art Unit 2623

vb
October 25, 2001



JOSEPH MANCUSO
PRIMARY EXAMINER